6.1.7 U.S. Electric Power Sector Cumulative Power Plant Additions Needed to Meet Future Electricity Demand (1)

Electric Generator	Typical New Plant Capacity (MW)		Number of New Power Plants to Meet Demand 2010	2015	2020	2025	2030
Coal Steam	600		13	29	62	110	167
Combined Cycle	400		34	40	50	73	84
Combustion Turbine/Diesel	160		45	53	66	139	271
Nuclear Power (2)	1,000		-	-	8	13	17
Pumped Storage	143	(3)	-	-	-	-	-
Fuel Cells	10		-	-	-	-	-
Conventional Hydropower	20	(3)	1	22	28	28	31
Geothermal	50		4	12	20	30	38
Municipal Solid Waste	30		20	20	21	23	23
Wood and Other Biomass	80		2	9	30	35	45
Solar Thermal	100		1	4	4	4	5
Solar Photovoltaic	5		8	24	37	55	72
Wind	50		282	363	443	514	573
Total			**412**	**581**	**785**	**1,060**	**1,385**
Distributed Generation	160	(4)					

Note(s): 1) Cumulative additions after Dec. 31, 2005. 2) Nuclear capacity includes 3 GW of uprates from 2004 to 2030. New nuclear plants are expected to come online 2013-2019. 3) Based on current stock average capacity. 4) Combustion turbine/diesel data used.

Source(s): EIA, Annual Energy Outlook (AEO) 2008, Mar. 2008, Table A9, p. 153-154 and Table A16, p. 162; EIA, Assumption to the AEO 2008, June 2008, Table 39, p. 77; and EIA, Electric Power Annual 2006, Sept. 2007, Table 2.2, p. 19 for pumped storage plant capacity and Table 2.6, p. 21 for hydroelectric plant capacity.